CLAIMS

1. A method of producing parts (1) made of a high-temperature-resistant composite, such as the vanes of an inlet guide vane assembly, said composite comprising reinforcing fibers embedded in a heat-cured polyimide resin matrix, said parts (1) having an inner platform (3), an outer platform (4) and at least one full blade (2a, 2b) connecting said platforms (3, 4), characterized by the following steps :

a) the essential portions (30, 40) of the platforms (3, 4), of the blades (2a, 2b) and of the blade/platform connection regions (6a, 6b) are produced, as separate structural elements, by superposition or winding of the layers of prepreg fibers (reinforcing fibers preimpregnated with resin) with the exception of the external layers that have to form at least the boundary wall for the stream of gases flowing through the guide vanes;

b) said separate structural elements are imidized;

c) said separate imidized structural elements are assembled;

d) the external layers of prepreg fibers are added in order to form the part;

e) the part thus formed is placed in a compression curing mold/contermold assembly; and

f) the part is cured by subjecting it to compressive forces.

2. The method as claimed in claim 1, characterized in that the external layers of fresh prepreg are added by draping the pressure side of a blade, and the adjacent portions of the faces that face the platforms, with first joining prepreg layers and by draping the suction side of a blade, and the adjacent portions of the faces that face the platforms, with second joining prepreg layers.

3. The method as claimed in either of claims 1 and 2, characterized in that the structural elements are imidized by heating them at 0.5°C/min with an intermediate hold for 120 minutes at 250°C before cooling.

4. The method as claimed in claim 3, characterized in that the structural elements are subjected to a relative vacuum of -50 mbar throughout the duration of the imidization cycle.

5. The method as claimed in any one of claims 1 to 4, characterized in that the part (1) is subjected to a compression of 35 bar when its temperature reaches 310°C, and this compression is maintained until the end of the cooling.